

ABSTRACT**SYSTEM FOR DETECTING THE DISTRIBUTION OF FLUOROPHORES**

A method for observing the presence of at least one fluorophore in a test material using a detector comprises the steps:

- 5 a) allowing incident ultraviolet light to pass through an exchangeable wavelength conversion screen comprising a scintillator which absorbs light of ultraviolet wavelengths and emits light of a narrow band width λ_{s1} - λ_{s2} whereby the transmitted light has wavelength in the range λ_{s1} to λ_{s2} ;
- 10 b) allowing transmitted light to pass into the test material which comprises a fluorophore which absorbs light at an excitation wavelength around a maximum λ_{dx} , in which $\lambda_{s1} < \lambda_{dx} < \lambda_{s2}$, and emits light at a wavelength λ_{dm} whereby the fluorophore emits light at said wavelength λ_{dm} ; and
- 15 c) detecting emitted light using a detector system which is sensitive to light of wavelength λ_{dm} .

The scintillator is suitably thulium doped yttrium vanadate and the fluorophore is preferably fluorescein.